Fifth Metatarsal Bone Anatomy in a Sample of Patients, Why the 5.5mm screw is the Goldilocks Screw

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Title: Fifth Metatarsal Bone Anatomy in a Sample of Patients, Why the 5.5mm screw is the Goldilocks Screw

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My disclosure is in the Final AOFAS Mobile App.

I have no potential conflicts with this presentation.
Background

• We wanted to verify our clinical experience that the 5.5mm screw was ideal in the majority of fifth metatarsal fracture fixations
Importance of screw size

• To obtain the maximal stability
• To reduce the risk for iatrogenic fracture.
Patients and Methods

- 27 Patients 14M: 13 F

- Age range 18-80 (Mean 45)

- Patients undergoing computer tomographic imaging of the foot for investigation other than fifth metatarsal pathology were recruited

- The bone morphology of the 5th Metatarsal was measured
Analysis

• The root diameter of the screw is 4mm and the outer diameter 5.5mm

• These parameters were correlated with the data
Results
Results

• The proximal third internal diameter ranged from 3.6-7.0mm (Mean of 5.0mm)

• 63% of patients were within the two parameters

• 93% of the metatarsals could easily accommodate the 5.5 mm screw.

• 2 of the metatarsals had an internal diameter of less than 4 mm (7%).
Conclusion

• A 5.5 mm screw can be used safely in 93% of patients with fifth metatarsal fractures
References


